A nationally recognized program at NCCU established to train future generations of biotechnology scientists prepared to work in the Pharmaceutical and Biomanufacturing Industry

An academic program providing a mix of classroom and laboratory based instruction with the latter focused on developing skills relevant to industry.

A program with a strong research focus, particularly in the areas of drug discovery and manufacturing technology with a faculty of scientists conducting scientific research to have an impact on human health and disease.
What Sets BRITE Apart from the Rest?

Excellent Training in Biopharma must be informed by excellent research.

Started a unique drug discovery program in 2007 with faculty from big pharma.

Students perform 18-hours per week of real translational pharmaceutical-grade research, empowering them to be job ready on day-1 and be highly competitive – independent workers & thinkers.

The State’s investment in this workforce development program has produced significant economic development in translational medicine.
Outreach

- Tours of the BRITE facility, conversations with scientists, provide hands-on STEM activities, and highlight STEM careers
- Summer camps for middle and high school students
- Professional development workshops for middle and high school teachers: 534 since 2008; 107 in 2016-17
- Served 83 of 100 counties since 2008; 19 counties in 2016-17

Counties Served 2016 - 2017

- Alamance
- Cumberland
- Duplin
- Durham
- Edgecombe
- Franklin
- Guilford
- Martin
- Mecklenburg
- Nash
- Northampton
- Orange
- Rockingham
- Scotland
- Person
- Pitt
- Vance
- Wake
- Warren

A total of 19 counties served
**BRITE by the Numbers**

**Enrollment**
- Fall 2016
  - 33 Freshman
  - 17 Transfers (includes spr17)
- Graduates
  - Fall/Spring/Summer 2014: 163
  - 2015: 169
  - 2016: 149

**Community College Articulation Agreements**

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<thead>
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<th></th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
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<tbody>
<tr>
<td><strong>BS</strong></td>
<td>163</td>
<td>169</td>
<td>149</td>
</tr>
<tr>
<td><strong>MS</strong></td>
<td>14</td>
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Discovery Research Areas Include:
Cancer, Diabetes/Obesity, Neurodegeneration, Alcohol abuse, infectious diseases, parasites, ischemic stroke, cardiovascular disease, plant biotechnology

• 52,000 sqf facility opened in 2007
• 13 Faculty, 7 with industrial experience
• 1/2 Million Compound Library On Site.
• $10 Million+ in Capital Equipment Purchased in 2006-2008
Academic & Industrial Partnerships

**Academic**
- UNC Chapel Hill
  - Collaborative Research with UNC Chapel Hill on Alcohol Pathology
  - Curriculum building with School of Pharmacy – MS Level.
  - Lineberger Comprehensive Cancer Center
- Duke
  - Triangle consortium on evolutionary medicine
  - Duke-NCCU Partnership – research, community outreach, workforce
- NCSU BTEC & NIIMBL
  - Consortium to advance pharmaceutical manufacturing. BRITE is an academic level 2 participant in NIIMBL focused on workforce development
  - NoroCORE – Building capacity to control viral foodborne disease.
  - 3/2 Curriculum for engineering students from NCCU

**Industrial**
- Eli Lilly & Co. – Drug Discovery
- Biotech - Southeast Techinventures, drug development – diabetes.
- Zen Bio Inc. – drug development, metabolic diseases
- Arthrotech – Biomarker for CVD
- PPD Biotech – Drug development – chronic liver disease
- Womac Army Medical Center - MOU
- Novo Nordisk – Worker Training
- Biospecifcics – Uterine fibroid technology.
- NIH/NCATS – HTS Ring Initiative
Partnering in Asia – A Rising Partner

MOU with Ningxia Medical University

- Two-Way Student Exchange
- Faculty Exchange
- Collaborative model for translating basic biomedical science research to the bedside at Ningxia medical hospital

MEMORANDUM OF UNDERSTANDING

Between
NORTH CAROLINA CENTRAL UNIVERSITY, USA
And
NINGXIA MEDICAL UNIVERSITY, CHINA

NOVEMBER 16, 2016